



# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

*We make Indiana a cleaner, healthier place to live.*

Joseph E. Kernan  
Governor

Lori F. Kaplan  
Commissioner

November 20, 2003

100 North Senate Avenue  
P.O. Box 6015  
Indianapolis, Indiana 46206-6015  
(317) 232-8603  
(800) 451-6027  
[www.in.gov/idem](http://www.in.gov/idem)

TO: Interested Parties / Applicant

RE: Hull Lift Truck, Inc. / 039-17221-00235

FROM: Paul Dubenetzky  
Chief, Permits Branch  
Office of Air Quality

## Notice of Decision: Approval - Registration

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 4-21.5-3-4(d) this order is effective when it is served. When served by U.S. mail, the order is effective three (3) calendar days from the mailing of this notice pursuant to IC 4-21.5-3-2(e).

If you wish to challenge this decision, IC 4-21.5-3-7 requires that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Room 1049, Indianapolis, IN 46204, **within eighteen (18) calendar days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

- (1) the date the document is delivered to the Office of Environmental Adjudication (OEA);
- (2) the date of the postmark on the envelope containing the document, if the document is mailed to OEA by U.S. mail; or
- (3) The date on which the document is deposited with a private carrier, as shown by receipt issued by the carrier, if the document is sent to the OEA by private carrier.

The petition must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by the decision or otherwise entitled to review by law. Please identify the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, date of this notice and all of the following:

- (1) the name and address of the person making the request;
- (2) the interest of the person making the request;
- (3) identification of any persons represented by the person making the request;
- (4) the reasons, with particularity, for the request;
- (5) the issues, with particularity, proposed for considerations at any hearing; and
- (6) identification of the terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing documents of the type issued by the Commissioner.

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178. Callers from within Indiana may call toll-free at 1-800-451-6027, ext. 3-0178.

Enclosures  
FN-REGIS.dot 9/16/03



# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

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[www.state.in.us/idem](http://www.state.in.us/idem)

Mr. Carey Bert  
Hull Lift Truck, Inc.  
28747 Old US 33 West  
Elkhart, Indiana 46516

November 20, 2003

Re: Registered Construction and Operation Status,  
039-17221-00235

Dear Mr. Bert:

The application from Hull Lift Truck, Inc., received on February 17, 2003 has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-5.5, it has been determined that the following repair and retail of industrial lift trucks plant, located at 28747 Old US 33 West, Elkhart, Indiana 46516, are classified as registered:

- (a) One (1) surface coating facility using one (1) HVLP gun, with a maximum throughput capacity of 1.25 industrial lift trucks per day, exhausting at stack AA and controlled by dry filters. This facility was constructed in 1994.
- (b) Fifteen (15) service bays, with a maximum throughput capacity of 1.25 industrial lift trucks per day, exhausting at vent EX-1. These units were constructed in 1996.
- (c) Five (5) metal inert gas (MIG) welding stations, with a maximum consumption of 1.0 pounds of electrode per hour. This unit was installed in 1996.
- (d) Two (2) stick welding stations, with a maximum consumption of 0.02 pounds of electrode per hour. This unit was installed in 1996.
- (e) One (1) tungsten inert gas (TIG) station, with a maximum consumption of 0.25 pounds of electrode per hour. This unit was installed in 1996.
- (f) Two (2) flame cutting stations using oxyacetylene, with a maximum metal cutting rate of twelve (12) inches per minute. These units were installed in 1996.
- (g) Two (2) flame cutting stations using oxyacetylene, with a maximum metal cutting rate of five (5) inches per minute. These units were installed in 1996.
- (h) One grinding facility, with a maximum throughput capacity of 1.25 industrial lift trucks per day, controlled by dry filters and exhausting to a recirculating ventilation system. This unit was installed in 1996.
- (i) One (1) diesel fuel storage tank (identified as T1), with a maximum storage capacity of 1000 gallons.
- (j) One (1) gasoline storage tank (identified as T2), with a maximum storage capacity of 400 gallons.
- (k) One (1) anti-freeze storage tank (identified as T3), with a maximum storage capacity of 1491 gallons.
- (l) One (1) motor-oil storage tank (identified as T4), with a maximum storage capacity of 7600 gallons.
- (m) One (1) hydraulic oil storage tank (identified as T5), with a maximum storage capacity of 1203 gallons.

- (n) Two (2) heavy duty cleaner storage tanks (Identified as T6 and T9), with a combined maximum storage capacity of 1000 gallons.
- (o) Two (2) degreaser storage tanks (identified as T7 and T8), with a combined maximum storage capacity of 5000 gallons.
- (p) One (1) waste oil storage tank (identified as T10), with a maximum storage capacity of 3500 gallons.
- (q) One (1) waste anti-freeze storage tank (identified as T11), with a maximum storage capacity of 150 gallons.
- (r) One (1) super AFT storage tank (identified as T12), with a maximum storage capacity of 896 gallons.
- (s) Ten (10) natural gas fired combustion units with a total maximum heat input capacity of 1.3 million British thermal unit (MMBtu/hour). These units were installed in 1994.
- (t) One (1) natural gas fired boiler, with a maximum heat input capacity of 0.254 MMBtu per hour. This unit was installed in 1994.

The following conditions shall be applicable:

- (a) Pursuant to 326 IAC 5-1-2 (Opacity Limitations) except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following:
  - (1) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
  - (2) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of 15 minutes (60 readings) in a 6-hour period as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor in a six (6) hour period.
- (b) Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations),
  - (1) The volatile organic compound (VOC) content of coating applied in the fifteen (15) service bays shall be limited to 3.5 pounds of VOCs per gallon of coating, excluding water, as delivered to the applicator for any calendar day, for forced warm air (less than 90EC or 194EF) dried coatings when painting metal parts.
  - (2) Pursuant to 326 IAC 8-2-9 (f), all solvents sprayed from the application equipment of fifteen (15) service bays during cleanup or color changes shall be directed into containers. Said containers shall be closed as soon as the solvent spraying is complete. In addition, all waste solvent shall be disposed of in such a manner that minimizes evaporation.
  - (3) Compliance with the VOC content shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) by preparing or obtaining from manufacturer the copies of the "as supplied" and "as applied" VOC data sheets. IDEM, OAQ, reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.
  - (4) The Permittee shall maintain records for the VOC content of each coating material and solvent used less water.
- (c) Pursuant to 326 IAC 6-3 (Particulate Emission Limitations from Manufacturing Processes), the particulate emission from the grinding facility shall not exceed 6.28

pounds per hour when operating at a process weight rate of 3775 pounds per hour.

The pounds per hour limitation was calculated with the following equation:

Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

The dry filters shall be in operation at all times the grinding facility is in operation, in order to comply with this limit.

- (d) Pursuant to 326 IAC 6-2-4 (Particulate Emission Limitations for Source of Indirect Heating,) the particulate emissions from the 0.254 MMBtu per hour boiler shall be limited to 0.6 pounds per MMBtu heat input.
- (e) Pursuant to 326 IAC 2-6 (Emission Reporting), the Permittee must annually submit an emission statement for the source. The annual statement must be received by April 15 of each year and contain the minimum requirement as specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8)(Emission Statement Operating Year).

This registration is the second air approval issued to this source. The construction permit issued on December 20, 1996 has expired. The source may operate according to 326 IAC 2-5.5.

An authorized individual shall provide an annual notice to the Office of Air Quality that the source is in operation and in compliance with this registration pursuant to 326 IAC 2-5.5-4(a)(3). The annual notice shall be submitted to:

**Compliance Data Section  
Office of Air Quality  
100 North Senate Avenue  
P.O. Box 6015  
Indianapolis, IN 46206-6015**

no later than March 1 of each year, with the annual notice being submitted in the format attached.

An application or notification shall be submitted in accordance with 326 IAC 2 to the Office of Air Quality (OAQ) if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source.

Pursuant to Contract No. A305-0-00-36, IDEM, OAQ has assigned the processing of this application to Eastern Research Group, Inc., (ERG). Therefore, questions should be directed to Sanobar Durrani, ERG, 1600 Perimeter Park Drive, Morrisville, North Carolina 27560, or call (919) 468-7810 to speak directly to Ms. Durrani. Questions may also be directed to Duane Van Laningham at IDEM, OAQ, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana, 46206-6015, or call (800) 451-6027, and ask for Duane Van Laningham, or extension 3-6878, or dial (317) 233-6878.

Sincerely,

Original Signed by Paul Dubenetzky  
Paul Dubenetzky, Chief  
Permits Branch  
Office of Air Quality

ERG/SD

cc: File - Elkhart County  
Elkhart County Health Department  
Air Compliance - Paul Karkiewicz  
Northern Regional Office  
Permit Tracking - Sara Cloe  
Technical Support and Modeling - Michele Boner  
Compliance Data Section - Karen Ampil

<b>Registration Annual Notification</b>
---

This form should be used to comply with the notification requirements under 326 IAC 2-5.5-4(a)(3).

<b>Company Name:</b>	<b>Hull Lift Truck, Inc.</b>
<b>Address:</b>	<b>28747 Old US 33 West</b>
<b>City:</b>	<b>Elkhart, Indiana 46901</b>
<b>Authorized individual:</b>	<b>Mr. Brian Hull</b>
<b>Phone #:</b>	<b>(574) 293-8651</b>
<b>Registration #:</b>	<b>R039-17221-00235</b>

I hereby certify that Hull Lift Truck, Inc. is still in operation and is in compliance with the requirements of Registration 039-17221-00235.

<b>Name (typed):</b>
<b>Title:</b>
<b>Signature:</b>
<b>Date:</b>

## **Indiana Department of Environmental Management Office of Air Quality**

### **Technical Support Document (TSD) for a Registration**

#### **Source Background and Description**

Source Name: Hull Lift Truck, Inc.  
Source Location: 28747 Old US 33 West, Elkhart, Indiana 46516  
County: Elkhart  
SIC Code: 3537  
Registration No.: 039-17221-00235  
Permit Reviewer: ERG/SD

The Office of Air Quality (OAQ) has reviewed an application from Hull Lift Truck, Inc., relating to the operation of a repair and retail of industrial lift trucks plant.

#### **Unpermitted Emission Units and Pollution Control Equipment**

The source consists of the following permitted emission units and pollution control devices:

- (a) One (1) surface coating facility using one (1) HVLP gun, with a maximum throughput capacity of 1.25 industrial lift trucks per day, exhausting at stack AA and controlled by dry filters. This facility was constructed in 1994.
- (b) Fifteen (15) service bays, with a maximum throughput capacity of 1.25 industrial lift trucks per day, exhausting at vent EX-1. These units were constructed in 1996.
- (c) Five (5) metal inert gas (MIG) welding stations, with a maximum consumption of 1.0 pounds of electrode per hour. This unit was installed in 1996.
- (d) Two (2) stick welding stations, with a maximum consumption of 0.02 pounds of electrode per hour. This unit was installed in 1996.
- (e) One (1) tungsten inert gas (TIG) station, with a maximum consumption of 0.25 pounds of electrode per hour. This unit was installed in 1996.
- (f) Two (2) flame cutting stations using oxyacetylene, with a maximum metal cutting rate of twelve (12) inches per minute. These units were installed in 1996.
- (g) Two (2) flame cutting stations using oxyacetylene, with a maximum metal cutting rate of five (5) inches per minute. These units were installed in 1996.
- (h) One grinding facility, with a maximum throughput capacity of 1.25 industrial lift trucks per day, controlled by dry filters and exhausting to a recirculating ventilation system. This unit was installed in 1996.
- (i) One (1) diesel fuel storage tank (identified as T1), with a maximum storage capacity of 1000 gallons.

- (j) One (1) gasoline storage tank (identified as T2), with a maximum storage capacity of 400 gallons.
- (k) One (1) anti-freeze storage tank (identified as T3), with a maximum storage capacity of 1491 gallons.
- (l) One (1) motor-oil storage tank (identified as T4), with a maximum storage capacity of 7600 gallons.
- (m) One (1) hydraulic oil storage tank (identified as T5), with a maximum storage capacity of 1203 gallons.
- (n) Two (2) heavy duty cleaner storage tanks (Identified as T6 and T9), with a combined maximum storage capacity of 1000 gallons.
- (o) Two (2) degreaser storage tanks (identified as T7 and T8), with a combined maximum storage capacity of 5000 gallons.
- (p) One (1) waste oil storage tank (identified as T10), with a maximum storage capacity of 3500 gallons.
- (q) One (1) waste anti-freeze storage tank (identified as T11), with a maximum storage capacity of 150 gallons.
- (r) One (1) super AFT storage tank (identified as T12), with a maximum storage capacity of 896 gallons.
- (s) Ten (10) natural gas fired combustion units with a total maximum heat input capacity of 1.3 million British thermal unit (MMBtu/hour). These units were installed in 1994.
- (t) One (1) natural gas fired boiler, with a maximum heat input capacity of 0.254 MMBtu per hour. This unit was installed in 1994.

#### **New Emission Units and Pollution Control Equipment**

There are no new construction activities included in this permit.

#### **Existing Approvals**

The source has been operating under previous approvals including, but not limited to, the following:

- (a) CP039-4932-00235, issued on December 20, 1996.
- (b) Exemption 039-3545-00235, issued February 22, 1994.

All conditions from previous approvals were incorporated into this permit.

#### **Enforcement Issue**

- (a) IDEM is aware that equipment has been operated prior to receipt of the proper permit. The Permittee failed to submit a operating permit application for its existing emissions units at the required time, prior to the expiration of its construction permit No. CP039-4932-00235, issued on December 20, 1996.
- (b) IDEM is reviewing this matter and will take appropriate action. This proposed permit is intended to satisfy the requirements of the operation permit rules.



### Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (°F)
AA	Service Bays	16.2	1.5	3600	Ambient

### Recommendation

The staff recommends to the Commissioner that the operation be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

A complete application for the purposes of this review was received on February 17, 2003. Additional information was received on April 28, 2003 and June 20, 2003.

### Emission Calculations

See Appendix A of this document for detailed emissions calculations (pages 1 through 11).

### Potential To Emit of Source Before Controls

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, the department, or the appropriate local air pollution control agency.”

Pollutant	Potential To Emit (tons/year)
PM	21.1
PM10	21.1
SO <sub>2</sub>	0.004
VOC	20.0
CO	0.59
NO <sub>x</sub>	0.70

HAPs	Potential To Emit (tons/year)
Single HAP (Toluene)	1.72
Combination of HAPs	<25

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of all criteria pollutants is less than 100 tons per year. Therefore, the source is not subject to the provisions of 326 IAC 2-7.
- (b) The potential to emit (as defined in 326 IAC 2-7-1(29)) of all criteria pollutants is less than twenty five (25) tons per year. Therefore, the source is not subject to the provisions of 326 IAC 2-6.1.
- (c) The potential to emit (as defined in 326 IAC 2-7-1(29)) of PM, PM10 and VOC pollutants are within the range specified in 326 IAC 2-5.5-1(b)(1), therefore, the source is subject to the provisions of 326 IAC 2-5.5.1. A registration will be issued.

- (d) The potential to emit (as defined in 326 IAC 2-7-1(29)) of any single HAP is less than ten (10) tons per year and the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination of HAPs is less than twenty-five (25) tons per year. Therefore, the source is not subject to the provisions of 326 IAC 2-7.
- (e) Fugitive Emissions  
Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

### County Attainment Status

The source is located in Elkhart County.

Pollutant	Status
PM10	Attainment
SO <sub>2</sub>	Attainment
NO <sub>2</sub>	Attainment
Ozone	Maintenance
CO	Attainment
Lead	Attainment

- (a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Elkhart County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (b) Elkhart County has been classified as attainment or unclassifiable for all criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (c) Fugitive Emissions  
Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD applicability.

### Source Status

Existing Source PSD, Part 70 or FESOP Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/ or as otherwise limited):

Pollutant	Emissions (ton/year)
PM	21.1
PM10	21.1
SO <sub>2</sub>	0.004
VOC	20.0
CO	0.59
NO <sub>x</sub>	0.70

- (a) This existing source is not a major stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or more, and it is not in one of the 28 listed source categories.

- (b) These emissions were based on revised potential to emit calculations as shown in Appendix A.

## **Part 70 Permit Determination**

### **326 IAC 2-7 (Part 70 Permit Program)**

This existing source is not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

- (a) each criteria pollutant is less than 100 tons per year,
- (b) a single hazardous air pollutant (HAP) is less than 10 tons per year, and
- (c) any combination of HAPs is less than 25 tons/year.

This is the second air approval issued to this source.

## **Federal Rule Applicability**

- (a) The existing organic storage tanks and distillate fuel oil storage tanks are not subject to the requirements of the New Source Performance standard, 326 IAC 12, (40 CFR 60.1106), Subpart Kb, because their individual capacities are less than 40 cubic meters (10,567 gallons).

There are no other New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source.

- (b) There are no National Emission Standard for Hazardous Air Pollutant (NESHAPs), 326 IAC 14 (40 CFR 63) applicable to this source.

## **State Rule Applicability - Entire Source**

### **326 IAC 2-2 (Prevention of Significant Deterioration (PSD))**

This source was a minor source when it was built in 1994 and is not in one (1) of the twenty-eight (28) listed source categories. The source was modified in 1996 to add two (2) MIG welding stations, one (1) stick welding station, four (4) flame cutting stations, one (1) grinding operation, and fifteen (15) service bays. After each of these modifications, the potential to emit of each criteria pollutant from the entire source remained less than 250 tons per year. Therefore, this source is a minor source and the requirements of 326 IAC 2-2 are not applicable.

### **326 IAC 8-6-1 (Organic Solvent Emission Limitations)**

This source is not subject to 326 IAC 8-6-1(2) (Organic Solvent Emission Limitations) because the potential to emit of VOC from the entire source is less than one hundred (100) tons per year.

### **326 IAC 2-6 (Emission Reporting)**

This source is subject to 326 IAC 2-6 (Emission Reporting), because it has the potential to emit more than ten (10) tons per year of VOC and is located in Elkhart county. Pursuant to this rule, the owner/operator of the source must annually submit an emission statement for the source. The annual statement must be received by April 15 of each year and contain the minimum requirement as specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8)(Emission Statement Operating Year).

### **326 IAC 5-1 (Opacity Limitations)**

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor in a six (6) hour period.

**326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAPs))**

The operation of retail and repair of individual lift trucks plant will emit less than ten (10) tons per year of a single HAP and twenty-five (25) tons per year of any combination of HAPs. Therefore, this source is not subject to the provisions of 326 IAC 2-4.1.

**State Rule Applicability - Surface Coating Facility and Service Bays**

**326 IAC 8-1-6 (New Facilities - General Reduction Requirement)**

Although constructed after January 1, 1980, the fifteen (15) service bays and one (1) surface coating facility are not subject to the provisions of 326 IAC 8-1-6 because these facilities are either currently subject to 326 IAC 8-2-9 or would become subject to 326 IAC 8-1-6 should they increase the actual coating usage. Facilities that are subject to other Article 8 rule, are exempt from the requirements of 326 IAC 8-1-6.

**326 IAC 8-2-9 (Miscellaneous Metal Coating)**

The fifteen (15) service bays are subject to the requirements of 326 IAC 8-2-9 (Miscellaneous Metal Coating) because the actual emissions of VOC are greater than fifteen (15) pounds per day and the source's Standard Industrial Classification Code is one of the listed codes in this rule.

Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), the volatile organic compound (VOC) content of coating delivered to the applicator at the fifteen (15) service bays shall each be limited to 3.5 pounds of VOCs per gallon of coating less water, for forced warm air dried coatings when painting metal parts.

Solvent sprayed from application equipment during cleanup or color changes shall be directed into containers. Such containers shall be closed as soon as such solvent spraying is complete, and the waste solvent shall be disposed of in such a manner that evaporation is minimized.

Based on the MSDS submitted by the source and calculations made, the spray booth is in compliance with this requirement.

The one (1) surface coating facility is not subject to the requirements of 326 IAC 8-2-9 (Miscellaneous Metal Coatings) because the actual VOC emissions are less than fifteen (15) pounds per day.

**326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes)**

The fifteen (15) service bays and one (1) surface coating facility are not subject to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes) because each of these facilities use less than five (5) gallons of coating per day.

**326 IAC 8-2-2 (Automobile and Light Duty Truck Coating Operations)**

This source is not subject to 326 IAC 8-2-2 because the surface coating facility and fifteen (15) service bays do not surface coat automobile and light duty truck bodies. It surface coats heavy industrial lift trucks.

### State Rule Applicability - Grinding

#### 326 IAC 6-3 (Particulate Emission Limitations from Manufacturing Processes)

Pursuant to 326 IAC 6-3 (Particulate Emission Limitations from Manufacturing Processes), the particulate emissions from the grinding facility shall not exceed 6.28 pounds per hour when operating at a process weight rate of 3775 pounds per hour.

The pounds per hour limitation was calculated with the following equation:

Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour; and} \\ P = \text{process weight rate in tons per hour}$$

The dry filters shall be in operation at all times the grinding facility is in operation, in order to comply with this limit.

Visible emissions notations are not required for the dry filters because the allowables pursuant to 326 IAC 6-3-2 are low.

### State Rule Applicability - Welding Operation

#### 326 IAC 6-3 (Particulate Matter Emission Limitations from Manufacturing Processes)

This source is not subject to 326 IAC 6-3-1 (Particulate Matter Emission Limitations from Manufacturing Processes) because the welding operation consumes less than six hundred and twenty-five (625) pounds of rod or wire per day [326 IAC 6-3-1(b)(9)].

### State Rule Applicability - Storage Tanks

#### 326 IAC 8-4-3 (Petroleum Liquid Storage Facilities)

This source is not subject to the requirements of 326 IAC 8-4-3 (Petroleum Liquid Storage Facilities) because the tank storage capacities are less than 39,000 gallons.

#### 326 IAC 8-9-1 (Volatile Organic Storage Vessels)

This source is not subject to the requirements of 326 IAC 8-9-1 (Volatile Organic Storage Vessels) because this source is not in any of the listed counties.

### State Rule Applicability - One (1) Natural Gas Fired Boiler

#### 326 IAC 6-2-4 (Particulate Emission Limitations for Sources of Indirect Heating)

Pursuant to 326 IAC 6-2-4 (Emission Limitations for Sources of Indirect Heating), the particulate emissions limitation from the 0.254 MMBtu per hour heat input boiler are calculated to be 1.56 pounds per MMBtu heat input. This limitation is based on the following equation:

$$P_t = \frac{1.09}{Q^{0.26}}$$

Where:

$P_t$  = Pounds of particulate matter emitted per million Btu (lb per MMBtu) heat input; and  
 $Q$  = total source maximum heat input capacity (MMBtu per hour)

However, for boilers with  $Q$  less than 10 MMBtu per hour, the pounds of particulate matter emitted per million Btu heat input shall not exceed 0.6 lbs per MMBtu. Therefore the 0.254 MMBtu per hour boiler shall not exceed 0.6 lbs of PM per MMBtu heat input.

### **State Rule Applicability - Natural Gas Fired Space and Water Heaters**

There are no specifically applicable regulations that apply to these emission units.

### **Conclusion**

The operation of this repair and retail of industrial lift trucks plant shall be subject to the conditions of the attached proposed Registration 039-17221-00235.

**Appendix A: Emission Calculations  
Natural Gas Combustion Only  
One (1) Boiler**

**Company Name:** Hull Lift Truck, Inc.  
**Address:** 28747 US 33 West, Elkhart, Indiana 46516  
**Registration:** 039-17221  
**Plt ID:** 039-00235  
**Reviewer:** ERG/SD  
**Date:** May 6, 2003

Total Heat Input Cap:  
MMBtu/hour

Potential Throughput  
MMCF/year

0.254
-------

2.2

Pollutant						
Emission Factor (lb/MMCF)	PM*	PM10*	SO <sub>2</sub>	NO <sub>x</sub>	VOC	CO
	7.6	7.6	0.6	100.0 **see below	5.5	84.0
Potential To Emit (tons/year)	0.01	0.01	0.001	0.11	0.01	0.09

\*PM and PM10 emission factors are filterable and condensible PM and PM10 combined.

\*\*Emission Factors for NO<sub>x</sub>: Uncontrolled = 100, Low NO<sub>x</sub> Burner = 50, Low NO<sub>x</sub> Burners/Flue gas recirculation = 32

**Methodology**

All Emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Emission Factors from AP-42, Chapter 1.4, Tables 1.4-1, 1.4-2, and 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (July, 1998)

Potential Throughput (MMCF/year) = Heat Input Capacity (MMBtu/hr) \* 8760 hours/year \* 1 MMCF/1000 MMBtu

Potential To Emit (tons/year) = Potential Throughput (MMCF/year) \* Emission Factor (lb/MMCF) \* 1ton/2000 lbs

See next page for HAPs emissions calculations.

**Appendix A: Emission Calculations  
Natural Gas Combustion Only  
One (1) Boiler**

**Company Name:** Hull Lift Truck, Inc.  
**Address:** 28747 US 33 West, Elkhart, Indiana 46516  
**Registration:** 039-17221  
**Plt ID:** 039-00235  
**Reviewer:** ERG/SD  
**Date:** May 6, 2003

**HAPs - Organics**

Emission Factor (lb/MMCF)	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential To Emit (tons/year)	2.336E-06	1.335E-06	8.344E-05	2.003E-03	3.783E-06

**HAPs - Metals**

Emission Factor (lb/MMCF)	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03
Potential To Emit (tons/year)	5.563E-07	1.224E-06	1.558E-06	4.228E-07	2.336E-06

Methodology is the same as previous page.

The five highest organic and metal HAPs emission factors provided above are from AP-42, Chapter 1.4, Table 1-4.2, 1.4-3 and 1.4-4 (July, 1998). Additional HAPs emission factors are available in AP-42, Chapter 1.4.



**Appendix A: Emission Calculations**  
**Natural Gas Combustion Only**  
**Ten (10) Radiant and Water Heaters**

**Company Name:** Hull Lift Truck, Inc.  
**Address:** 28747 US 33 West, Elkhart, Indiana 46516  
**Registration:** 039-17221  
**Plt ID:** 039-00235  
**Reviewer:** ERG/SD  
**Date:** May 6, 2003

Total Heat Input Cap:  
MMBtu/hour

Potential Throughput  
MMCF/year

1.3 (10 units total)

11.7

Pollutant						
Emission Factor (lb/MMCF)	PM*	PM10*	SO <sub>2</sub>	NO <sub>x</sub>	VOC	CO
	7.6	7.6	0.6	100.0 **see below	5.5	84.0
Potential To Emit (tons/year)	0.04	0.04	0.004	0.59	0.03	0.49

\*PM and PM10 emission factors are filterable and condensible PM and PM10 combined.

\*\*Emission Factors for NO<sub>x</sub>: Uncontrolled = 100, Low NO<sub>x</sub> Burner = 50, Low NO<sub>x</sub> Burners/Flue gas recirculation = 32

**Methodology**

All Emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Emission Factors from AP-42, Chapter 1.4, Tables 1.4-1, 1.4-2, and 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (July, 1998)

Potential Throughput (MMCF/year) = Heat Input Capacity (MMBtu/hr) \* 8760 hours/year \* 1 MMCF/1000 MMBtu

Potential To Emit (tons/year) = Potential Throughput (MMCF/year) \* Emission Factor (lb/MMCF) \* 1ton/2000 lbs

See next page for HAPs emissions calculations.

**Appendix A: Emission Calculations**  
**Natural Gas Combustion Only**  
**Ten (10) Radiant and Water Heaters**

**Company Name:** Hull Lift Truck, Inc.  
**Address:** 28747 US 33 West, Elkhart, Indiana 46516  
**Registration:** 039-17221  
**Pit ID:** 039-00235  
**Reviewer:** ERG/SD  
**Date:** May 6, 2003

**HAPs - Organics**

Emission Factor (lb/MMCF)	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential To Emit (tons/year)	1.230E-05	7.030E-06	4.394E-04	1.054E-02	1.992E-05

**HAPs - Metals**

Emission Factor (lb/MMCF)	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03
Potential To Emit (tons/year)	2.929E-06	6.444E-06	8.202E-06	2.226E-06	1.230E-05

Methodology is the same as previous page.

The five highest organic and metal HAPs emission factors provided above are from AP-42, Chapter 1.4, Table 1-4.2, 1.4-3 and 1.4-4 (July, 1998). Additional HAPs emission factors are available in AP-42, Chapter 1.4.

**Appendix A: Emissions Calculations  
VOC and PM/PM10 Emissions  
From Surface Coating Operations**

**Company Name:** Hull Lift Truck, Inc.  
**Address:** 28747 US 33 West, Elkhart, Indiana 46516  
**Registration:** 039-17221  
**Plt ID:** 039-00235  
**Reviewer:** ERG/SD  
**Date:** May 6, 2003

Material	Density (lb/gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non- Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	PTE VOC (lbs/hr)	PTE VOC (lbs/day)	PTE VOC (tons/year)	PTE PM/PM10 (ton/year)	**Transfer Efficiency	PTE PM/PM10 (lbs/hr)
<b>Lime Green</b>	6.69	85.7%	0.0%	85.7%	0.0%	17.0%	0.15	0.19	5.73	5.73	<b>0.17</b>	<b>4.03</b>	<b>0.73</b>	0.04	65%	0.01
<b>E360 Epoxy Primer</b>	9.35	54.4%	0.0%	54.4%	0.0%	45.6%	0.11	0.19	5.09	5.09	0.10	2.49	0.45	0.13	65%	0.03
<b>3.5 VOC Color</b>	9.97	34.5%	0.0%	34.5%	0.0%	59.0%	0.11	0.19	3.44	3.44	0.07	1.80	0.33	0.22	65%	0.05

**Total State Potential Emissions**

**Worst Case Emission**

**Actual Emission (lbs/day) = 1.34**

**0.17**

**4.03**

**0.73**

**0.22**

**0.05**

\*\*One (1) HVLP gun is used to apply the coating

**METHODOLOGY**

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) \* Weight % Organics) / (1-Volume % water)

Pounds of VOC per Gallon Coating = (Density (lb/gal) \* Weight % Organics)

PTE VOC (pounds/hour) = Pounds of VOC/Gallon coating (lb/gal) \* Gal of Material (gal/unit) \* Maximum (units/hr)

PTE VOC (pounds/day) = Pounds of VOC/Gallon coating (lb/gal) \* Gal of Material (gal/unit) \* Maximum (units/hr) \* (24 hr/day)

PTE VOC (tons/year) = Pounds of VOC per Gallon coating (lb/gal) \* Gal of Material (gal/unit) \* Maximum (units/hr) \* (8760 hr/yr) \* (1 ton/2000 lbs)

PTE PM/PM10 (tons/year) = Max. (units/hour) \* Gal of Mat (gal/unit) \* Density (lbs/gal) \* (1- Weight % Volatile) \* (1-Transfer efficiency) \*8760 hours/year \*1ton/2000 lbs

PTE PM/PM10 (lbs/hour) = Max. (units/hour) \* Gal of Mat (gal/unit) \* Density (lbs/gal) \* (1- Weight % Volatile) \* (1-Transfer efficiency)

**Appendix A: Emissions Calculations**  
**HAP Emissions**  
**From Surface Coating Operations**

**Company Name:** Hull Lift Truck, Inc.  
**Address:** 28747 US 33 West, Elkhart, Indiana 46516  
**Registration:** 039-17221  
**Pit ID:** 039-00235  
**Reviewer:** ERG/SD  
**Date:** May 6, 2003

Material	Density (lb/gal)	*Gal of Mat. (gal/unit)	Maximum (unit/hr)	Weight % n-Butyl Acetate	Weight % Glycol Ether	Weight % Hexamethylene Diisocyanate	Weight % Xylene	Weight % MIBK	Weight % Toluene	Weight % Ethylbenzene	Weight % MEK	n-Butyl Acetate Emissions (ton/year)	Glycol Ether Emissions (ton/year)	Hexamethylene Diisocyanate Emissions (ton/year)	Xylene Emissions (ton/year)	MIBK (ton/year)	Toluene (tons/year)	Ethylbenzene (tons/year)	MEK (tons/year)
Lime Green	6.69	0.15	0.19	0.0%	20.0%		16.0%					0.00	0.17	0.00	0.14	0.00	0.00	0.00	0.00
Enamel Hardner	8.92	0.15	0.19	22%		78.0%						0.25	0.00	0.89	0.00	0.00	0.00	0.00	0.00
Toluene	7.26	0.15	0.19						100%			0.00	0.00	0.00	0.00	0.00	0.93	0.00	0.00
E360 Epoxy Primer	10.61	0.15	0.19				20.0%	7.0%		5.0%		0.00	0.00	0.00	0.27	0.10	0.00	0.07	0.00
E375 No Induction Catalyst	7.46	0.15	0.19							30.0%	30.0%	0.00	0.00	0.00	0.00	0.00	0.00	0.29	0.29
3.5 VOC Color	10.08	0.15	0.19					24.0%				0.00	0.00	0.00	0.00	0.31	0.00	0.00	0.00
A3.5 Activator	8.56	0.15	0.19					25.0%				0.00	0.00	0.00	0.00	0.27	0.00	0.00	0.00
<b>SUM</b>												<b>0.25</b>	<b>0.17</b>	<b>0.89</b>	<b>0.27</b>	<b>0.31</b>	<b>0.93</b>	<b>0.29</b>	<b>0.29</b>

\* Assume worst case coating

**Individual HAP (Toluene):** 0.93  
**Combined Total HAPs:** 3.40

**METHODOLOGY**

PTE HAPs (tons/year) = Density (lb/gal) \* Gal of Mat. (gal/unit) \* Maximum (unit/hour) \* Weight % HAP \* 8760 hours/year \* 1 ton/2000 lbs

**Appendix A: Emissions Calculations**  
**Welding and Thermal Cutting**

**Company Name:** Hull Lift Truck, Inc.

**Address:** 28747 US 33 West, Elkhart, Indiana 46516

**Registration:** 039-17221

**Plt ID:** 039-00235

**Reviewer:** ERG/SD

**Date:** May 6, 2003

PROCESS  WELDING	Number of Stations	Max. electrode consumption per station (lbs/hr)	EMISSION FACTORS* (lb pollutant/lb electrode)				EMISSIONS (lbs/hr)				HAPS (lbs/hr)	
			PM=PM10	Mn	Ni	Cr	PM/PM10	Mn	Ni	Cr		
Metal Inert Gas (MIG)(steel)	5	1.00	0.0241	0.000034		0.00001	0.121	1.7E-04	0E+00	0.00005	2.2E-04	
Stick (E7018 electrode)	2	0.02	0.0211	0.0009			0.001	4.3E-05	0E+00	0	4.3E-05	
Tungsten Inert Gas (TIG)(steel)	1	0.25	0.0055	0.0005			0.001	1.3E-04	0E+00	0	1.3E-04	
FLAME CUTTING	Number of Stations	Max. Metal Thickness Cut (in.)	Max. Metal Cutting Rate (in./minute)	EMISSION FACTORS (lb pollutant/1000 in. cut, 1" thick)				EMISSIONS (lbs/hr)				HAPS (lbs/hr)
				PM=PM10	Mn	Ni	Cr	PM/PM10	Mn	Ni	Cr	
Oxyacetylene	2	1	12	0.1622	0.0005	0.0001	0.0003	0.234	7.2E-04	1.4E-04	4.3E-04	1.3E-03
Oxyacetylene	2	1	5	0.1622	0.0005	0.0001	0.0003	0.097	3.0E-04	6.0E-05	1.8E-04	5.4E-04
TOTAL EMISSIONS												
PTE (lbs/hour)								0.45	0.001	2.0E-04	6.6E-04	2.2E-03
PTE (lbs/day)								10.89	0.033	4.9E-03	1.6E-02	5.3E-02
PTE (tons/year)								1.99	0.006	8.9E-04	2.9E-03	9.7E-03

Welding Emission Factors are from AP-42, Chapter 12.19

\*Emission factors are default values for carbon steel unless a specific electrode type is noted in the Process column.

**METHODOLOGY**

Cutting emissions (lb/hour) = No. of stations \* Max. metal thickness(in) \* Max. cutting rate (in/min) \*60 min/hour\* Emission factor (lb pollutant/1,000 in. cut, 1" thick)

Welding emissions (lb/hour) = No. of stations \* Max. lbs of electrode used/hour/station \* emission factor (lb pollutant/lb of electrode used)

PTE (lbs/day) = PTE (lbs/hour) \* 24 hrs/day

PTE (tons/year) = PTE (lb/hour) \* 8760 hours/year \* 1ton/2000 lbs

**Appendix A: Emissions Calculations**  
**PM/PM10 Emissions**  
**From Grinding Operation**

**Company Name:** Hull Lift Truck, Inc.  
**Address:** 28747 US 33 West, Elkhart, Indiana 46516  
**Registration:** 039-17221  
**Plt ID:** 039-00235  
**Reviewer:** ERG/SD  
**Date:** May 6, 2003

**Actual Usage Data**

Gallons of paint used per year=	430
Max no. of trucks painted per day =	1.25
Actual days of operation per year =	260
Actual no. of trucks painted per year =	325
Assume a transfer efficiency =	85%
Gallons of paint on the truck =	366

**Amount of Paint Ground Off Per Truck****Amount of Steel Ground Off Per Truck**

1 Gallon =	231 cubic inches	Density of steel =	7.85 g/cm3
* One (1) Truck =	16344 sq inches	* One (1) Truck =	16344 sq inches
325 Trucks =	5311800 sq inches	325 Trucks =	5311800 sq inches
365.5 Gallons =	84430.5 cubic inches		
* Inches of paint per truck =	0.016 inch	Weight of steel per cubic inch =	0.28 lbs/cubic inch
Cubic inches of paint per truck =	260 cubic inches	* Inches ground-off from steel surface =	0.005
Weight of Paint lbs per gallon =	8.84 lbs/gal	Cubic inches of steel ground-off per truck =	81.7
Weight of Paint lbs per cubic inch =	0.0383 lbs/cubic inch	Steel ground-off lbs/truck =	23.2 lbs steel ground-off/truck
Solids Content =	44%		
Paint ground-off lbs/truck =	4.37 lbs paint ground-off/truck		

PM/PM10 (lbs/truck) =	27.5 lbs PM/truck
Max. throughput rate (trucks/year) =	1369 trucks/year
PTE PM/PM10 (lbs/year) =	37708 lbs/year
PTE PM/PM10 (lbs/hour) =	4.30 lbs/hour
PTE PM/PM10 before controls (tons/year) =	18.85 tons/year
Control efficiency (dry filters) =	98%
PTE PM/PM10 after controls tons/year =	0.38

Assume all PM emissions are equal to PM10

\* Information provided by the source

**METHODOLOGY**

Paint ground-off (lbs/truck) = Weight of paint (lbs) per cubic inch \* Cubic inches of paint per truck

Steel ground-off (lbs/truck) = Weight of steel (lbs) per cubic inch \* Cubic inches of steel ground-off per truck

PM/PM10 (lbs/truck) = Paint ground-off (lbs/truck) + Steel ground-off (lbs/truck)

PTE PM/PM10 (lbs/year) = PM/PM10 (lbs/truck) \* Max. throughput rate (trucks/year)

PTE PM/PM10 (lbs/hour) = PM/PM10 (lbs/truck) \* Max. throughput rate (trucks/year) \* 1 year/8760 hours

PTE PM/PM10 (tons/year) = PM/PM10 (lbs/truck) \* Max. throughput rate (trucks/year) \* 1 year/8760 hours \* 8760 hours/year \* 1ton/2000 lbs

Appendix A: Emissions Calculations  
 VOC Emissions  
 From Fifteen (15) Service Bays

Company Name: Hull Lift Truck, Inc.  
 Address: 28747 US 33 West, Elkhart, Indiana 46516  
 Registration: 039-17221  
 Plt ID: 039-00235  
 Reviewer: ERG/SD  
 Date: May 6, 2003

Actual Hours of Operation hours/year = 2080

Product Name	Amount Used (lbs)	Amount Used (lbs/hour)	VOC Content %	PTE VOC (lbs/hour)	PTE VOC (tons/year)
High Tack	1.3	0.001	88.0%	0.001	0.002
Toyota N/C Carburetor Cleaner	32.5	0.016	100%	0.02	0.068
Break-A-Way	334	0.161	96.0%	0.15	0.675
Toyota N/C Brake Cleaner	3601	1.731	100%	1.73	7.582
Gasket Remover	0.86	0.000	91.4%	0.00	0.002
Black Repair	66.8	0.032	61.0%	0.02	0.086
Orange Repair	322.3	0.155	64.7%	0.10	0.439
Toyota White Grease	209.7	0.101	6.7%	0.01	0.029
Beige	8.72	0.004	52.2%	0.00	0.010
Waterless Hand Cleaner	232	0.111	80.0%	0.09	0.390
Permatex Thread Sealant	0.5	0.000	37.9%	0.00	0.000
242 Threadlocker	7.75	0.004	13.3%	5.0E-04	0.002
518 Gasket Sealer	0.75	0.000	65.3%	2.4E-04	0.001
Anti-Seize Lubricant	4.10	0.002	10.7%	2.1E-04	0.001
3M Super Weatherstrip	1.55	0.001	63.0%	4.7E-04	0.002
Permatex # 2 Form-A-Gasket	2.75	0.001	14.2%	1.9E-04	0.001
Clear Silicone Sealant	1.25	0.001	4.70%	2.8E-05	0.000
Black Silicone Sealant	8.00	0.004	4.50%	1.7E-04	0.001
The Righ Stuff Gasket Maker	7.68	0.004	4.01%	1.5E-04	0.001
Cyclo Silicone Spray	11.1	0.005	94.7%	5.1E-03	0.022
Anarobc Gasket Eliminator # 518	1.09	0.001	13.0%	6.8E-05	0.000
Eclipse Glass Cleaner	27.5	0.013	11.2%	1.5E-03	0.006
Battery Cleaner w/ Acid Detector	4.58	0.002	14.2%	3.1E-04	0.001
Fast Orange Hand Cleaner	16.0	0.008	9.2%	7.1E-04	0.003
Toyota Grey Paint	175.5	0.084	90.0%	0.08	0.333
Crete Clean	5756	2.767	39.0%	1.08	4.727
Kleanstroke	12.4	0.006	25.0%	0.00	0.007
E-Z Truck Wash	2730	1.312	81.1%	1.06	4.662
Black Low Volatile RTV Silicone	2.01	0.001	5.00%	0.00	0.000
Bar's Leak	0.66	0.000	5.00%	0.00	0.000
Fast Orange Pumice Lotion	85.5	0.041	9.20%	0.00	0.017
Aviation Cement	2.28	0.001	24.9%	0.00	0.001
Ultra Blue Silicone	1.17	0.001	5.50%	0.00	0.000
98H High Tack Sealant	0.91	0.000	55.3%	0.00	0.001
99MA High Tack Spray 9oz	1.09	0.001	45.0%	0.00	0.001
1333K Anti-Sieze 8oz	1.22	0.001	13.8%	0.00	0.000
14H Thread Sealant w/ Teflon	0.58	0.000	37.9%	0.00	0.000
Nova	54.8	0.026	85.0%	0.02	0.098
Safety Kleen Green	45.0	0.022	55.0%	0.01	0.052
Wash N' Wax	33.5	0.016	39.0%	0.01	0.028
Hi Quat	49.8	0.024	0.00%	0.00	0.000
Window Works	47.3	0.023	0.00%	0.00	0.000
				4.40	19.3

PTE VOC lbs/hour = 4.40  
 PTE VOC tons/year = 19.3  
 Actual (lbs/day) = 35.2

#### METHODOLOGY

PTE VOC (lbs/hour) = Amount Paint Used (lbs) \* 1/Actual Hours of Operation (2080 hours/year) \* VOC Content %  
 PTE VOC (tons/year) = Amount Paint Used (lbs) \* 1/Actual Hours of Operation (2080 hours/year) \* VOC Content % \* 8760 hours/year \* 1ton/2000 lbs  
 Actual VOC (lbs/day) = PTE (lbs/hour) \* 2080 hours/year \* 1year/260 days of operation

**Appendix A: Emissions Calculations**  
**HAP Emissions**  
**From Fifteen (15) Service Bays**

**Company Name:** Hull Lift Truck, Inc.  
**Address:** 28747 US 33 West, Elkhart, Indiana 46516  
**Registration:** 039-17221  
**Pit ID:** 039-00235  
**Reviewer:** ERG/SD  
**Date:** May 6, 2003

Material	*Max. Rate (lb/hour)	Weight % n-Butyl Acetate	Weight % Glycol Ether	Weight % Hexane	Weight % Xylene	Weight % MIBK	Weight % Toluene	Weight % Ethylbenzene	Weight % MEK	Weight % Methanol	Weight % 2-Butoxyethanol	n-Butyl Acetate Emissions (ton/year)	Glycol Ether Emissions (ton/year)	Hexane Emissions (ton/year)	Xylene Emissions (ton/year)	MIBK (ton/year)	Toluene (tons/year)	Ethylbenzene (tons/year)	MEK (tons/year)	Methanol (tons/year)	2-Butoxyethanol (tons/year)
Toyota N/C Brake Cleaner	1.73	0.0%	20.0%		0.0%		21%					0.00	1.52	0.00	0.00	0.00	1.59	0.00	0.00	0	0
Safety Kleen	0.022	17.0%	17.0%	0.0%	15.0%		60%	60%	40%			0.02	0.02	0.00	0.01	0.00	0.06	0.06	0.04	0	0
Permatex # 2 Form-A-Gasket	0.001	0.000	14.2%	45%								0.00	0.00	0.002	0.00	0.00	0.00	0.00	0.00	0	0
Toyota N/C Carb Cleaner	0.016				20.0%	7.0%	100%	5.0%	15%	100%		0.00	0.00	0.00	0.01	0.00	0.07	0.00	0.01	0.02	0
Window Works	0.02							30.0%	30%			0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.03	0	0
White Grease	0.101					24.0%						0.00	0.00	0.00	0.00	0.11	0.00	0.00	0.00	0	0
Battery Cleaner	0.002										10%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0	0.001
<b>SUM</b>												<b>0.02</b>	<b>1.53</b>	<b>0.00</b>	<b>0.03</b>	<b>0.11</b>	<b>1.72</b>	<b>0.09</b>	<b>0.08</b>	<b>0.02</b>	<b>0.001</b>

**Individual HAP (Toluene):** 1.72  
**Combined Total HAPs:** 3.60

**METHODOLOGY**

PTE HAPS (tons/year) = Max. Usage Rate (lb/hour) \* Weight % HAP \* 8760 hours/year \* 1 ton / 2000 lbs



**Appendix A: Emission Calculations  
Summary Emissions**

**Company Name:** Hull Lift Truck, Inc.  
**Address:** 28747 US 33 West, Elkhart, Indiana 46516  
**Registration:** 039-17221  
**Plt ID:** 039-00235  
**Reviewer:** ERG/SD  
**Date:** May 6, 2003

**POTENTIAL TO EMIT BEFORE CONTROLS IN TONS PER YEAR**

Emission Unit	PM	PM10	VOC	NOX	SO2	CO	Single HAP	Combined HAP
1 Bolier	0.01	0.01	0.01	0.11	0.001	0.09		
10 Combustion Units	0.04	0.04	0.03	0.59	0.004	0.49		
Paint Booth	0.22	0.22	0.73				0.93	3.40
Welding Operations	1.99	1.99						0.01
Grinding	18.9	18.9						
15 Service Bays			19.3				1.72	3.60
	21.1	21.1	20.0	0.70	0.004	0.59	2.65	7.01